

WHAT IS CLAIMED IS:

1. A light emitting display comprising:

display panel on which are formed a plurality of data lines for transmitting data current that displays video signals, a plurality of scan lines for transmitting a select signal, and a plurality of pixel circuits formed at a plurality of pixels defined by the data lines and the scan lines ,

wherein at least one pixel circuit includes:

a light emitting element for emitting light corresponding to an applied current;

10 a first transistor, having a first main electrode, a second main electrodes and a control electrode, for supplying a driving current for the light emitting element;

a first switch for diode-connecting the first transistor in response to a first control signal;

15 a second switch for transmitting a data signal from the data line in response to the select signal from the scan line;

a first storage element for storing a first voltage corresponding to the data current from the second switch in response to a second control signal;

20 a second storage element for storing a second voltage corresponding to a threshold voltage of the first transistor in response to a disable level of the second control signal; and

a third switch for transmitting the driving current from the first transistor to the light emitting element in response to a third control signal,

wherein the second voltage is applied to the second storage element after the first voltage is applied to the first storage element, and a third voltage stored in the first storage element is applied to the first transistor by coupling of the first and second storage elements to output the driving current.

5 2. The light emitting display of claim 1, wherein the light emitting display operates in the order of:

 a first interval for enabling the first and second control signals and the first select signal to store the first voltage in the first storage element;

10 a second interval for enabling the first control signal and disabling the second control signal and the first select signal to store the second voltage in the second storage element; and

 a third interval for disabling the first control signal and enabling the third control signal to supply the driving current corresponding to the third voltage to the light emitting element.

15 3. The light emitting display of claim 1, wherein

 the pixel circuit further comprises a fourth switch that is turned on in response to the second control signal and has a first end coupled to a control electrode of the first transistor;

 the fourth switch is turned on to form the first storage element; and

20 the fourth switch is turned off to form the second storage element.

 4. The light emitting display of claim 3, wherein

 the second storage element is formed by a first capacitor coupled between a control electrode and a first main electrode of the first transistor; and

 the first storage element is formed by parallel coupling of first and

second capacitors, the second capacitor being coupled between the first main electrode of the first transistor and a second end of the fourth switch.

5. The light emitting display of claim 3, wherein

the first storage element is formed by a first capacitor coupled between
5 a second end of the fourth switch and a first main electrode of the first transistor; and

the second storage element is formed by serial coupling of first and second capacitors, the second capacitor being coupled between the second end of the fourth switch and the control electrode of the first transistor.

10 6. The light emitting display of claim 3, wherein

the first control signal is formed by the first select signal and a second select signal from a next scan line having an enable interval after the first select signal; and

the first switch includes a second transistor for diode-connecting the first transistor in response to the first select signal, and a third transistor for diode-connecting the first transistor in response to the second select signal.

15 7. The light emitting display of claim 3, wherein

the second control signal is formed by the first select signal and the third control signal;

20 the pixel circuit further comprises a fifth switch coupled in parallel to the fourth switch; and

the fourth and fifth switches are respectively turned on in response to the first select signal and the third control signal.

8. The light emitting display of claim 3, wherein

the first control signal is formed by the first select signal and a second select signal from a next scan line having an enable interval after the first select signal;

the second control signal is formed by the first select signal and the third control signal;

the first switch includes a second transistor for diode-connecting the first transistor in response to the first select signal, and a third transistor for diode-connecting the first transistor in response to the second select signal;

the pixel circuit further comprises a fifth switch coupled in parallel to the fourth switch, and

the fourth switch and the fifth switch are turned on in response to the first select signal and the third control signal.

9. A method for driving a light emitting display including a pixel circuit including a switch for transmitting a data current from a data line in response to a select signal from a scan line, a transistor including a first main electrode, a second main electrode and a control electrode for outputting a driving current in response to the data current, and a light emitting element for emitting light corresponding to the driving current from the transistor, the method comprising:

storing a first voltage corresponding to a data current from the switch in a first storage element formed between the control electrode and the first main electrode of the transistor;

applying a second voltage corresponding to a threshold voltage of the transistor to a second storage element formed between the control electrode and the first main electrode of the transistor;

coupling the first and second storage elements to establish the voltage between the control electrode and the first main electrode of the transistor as a third voltage; and

transmitting the driving current from the transistor to the light emitting

5 display;

wherein the driving current from the transistor is determined corresponding to the third voltage.

10. The method of claim 9, wherein

the first storage element includes a first capacitor and a second capacitor coupled in parallel between the control electrode and the first main electrode of the transistor;

the second storage element includes the first capacitor; and

the third voltage is determined by parallel coupling of the first capacitor and the second capacitor.

15 11. The method of claim 9, wherein

the first storage element includes a first capacitor coupled between the control electrode and the first main electrode of the transistor;

the second storage element includes the first capacitor and a second capacitor coupled between the first capacitor and the control electrode of the transistor; and

the third voltage is determined by the first capacitor.

20 12. The method of claim 9, further comprising

diode-connecting the transistor in response to a first control signal;

forming the first storage element in response to a first level of a second

control signal;

providing the data current in response to a first select signal from the scan line;

applying the first voltage to the first storage element;

5 forming the second storage element in response to a second level of the second control signal;

applying the second voltage to the second storage element;

forming the first storage element for storing the third voltage in response to a second level of the second control signal; and

10 transmitting the driving current to the light emitting element in response to a third control signal.

13. The method of claim 12, wherein

the first control signal is formed by the first select signal; and

the second control signal is formed by a second select signal from a

15 next scan line having an enable interval after the first select signal.

14. The method of claim 12, wherein

a first level of the second control signal is formed by the first select signal;

and

20 a first level of the second control signal is formed by the third control signal.

15. The method of claim 12, wherein

a first level of the second control signal and the first control signal are formed by the first select signal;

the first control signal is formed by a second select signal from a next scan line having an enable interval after the first select signal; and

a first level of the second control signal is formed by the third control signal.

5 16. A display panel of a light emitting display comprising:

a plurality of data lines for transmitting the data current that displays video signals;

a plurality of scan lines for transmitting a select signal; and

10 a plurality of pixel circuits formed at a plurality of pixels defined by the data lines and the scan lines are formed,

wherein at least one of the pixel circuits includes:

a light emitting element for emitting light corresponding to the applied current;

15 a first transistor for outputting the current for driving the light emitting element;

a first switch for transmitting the data current from the data line to the first transistor in response to a first select signal from the scan line;

a second switch diode-connecting the first transistor in response to a first control signal;

20 a third switch for operating in response to a second control signal;

a fourth switch for transmitting the driving current from the transistor to the light emitting element in response to a third control signal;

a first storage element formed between a control electrode and

a first main electrode of the first transistor when the third switch is turned on; and

a second storage element formed between the control electrode and the first main electrode of the first transistor when the third switch
5 is turned off;

wherein the display panel operates in the order of: a first interval for applying a first voltage corresponding to the data current to the first storage element, a second interval for applying a second voltage corresponding to a threshold voltage of the first transistor to the second storage element, and a
10 third interval for generating the driving current by a third voltage stored in the first storage element by the first and second voltages.

17. The display panel of claim 16, wherein

the first interval operates by enable levels of the first select signal and the first and second control signals, and a disable level of the third control
15 signal,

the second interval operates by an enable level of the first control signal, and disable levels of the first select signal and the first control signal and the third control signal; and

the third interval operates by enable levels of the second control signal and the third control signal, and disable levels of the first select signal and the first control signal.
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18. The display panel of claim 17, wherein

the enable levels of the first control signal in the first and second intervals are formed by the first select signal and a second select signal from a

next scan line having an enable interval after the first select signal; and
the second switch includes two transistors respectively responding to
the first and second select signals.

19. The display panel of claim 17, wherein

5 the enable levels of the second control signal in the first level and the
third interval are formed by the first select signal and the third control signal;
and

the third switch includes two transistors respectively responding to the
first select signal and the third control signal.

10 20. The display panel of claim 19, wherein

the enable levels of the first control signal in the first and second
intervals are formed by the first select signal and a second select signal from a
next scan line having an enable interval after the first select signal; and

15 the enable levels of the second control signal in the first level and the
third interval are formed by the first select signal and the third control signal;
and

the second switch includes two transistors respectively responding to
the first and second select signals; and

the third switch includes two transistors respectively responding to the
first select signal and the third control signal.